CLAIMS

1. A sol, characterized in that it comprises:
   - an aqueous phase;
   - particles of a phosphate of at least one rare earth selected from cerium and lanthanum;
   - an acid other than phosphoric acid, the cerium and lanthanum salts of which are soluble in water.

2. A sol as claimed in claim 1, characterized in that said acid is selected from acids with a pK_a of at least 3.

3. A sol according to claim 1 or claim 2, characterized in that said acid is selected from nitric acid, acetic acid, formic acid, citric acid and propionic acid.

4. A sol according to any one of the preceding claims, characterized in that its pH is at least 4, more particularly in the range 4 to 6.

5. A sol according to any one of the preceding claims, characterized in that the rare earth phosphate particles are constituted by elementary crystals 5 nm to 20 nm thick and in the range 25 nm to 200 nm in length.

6. A process for preparing a sol of a phosphate of at least one rare earth selected from cerium and lanthanum according to any one of claims 1 to 5, is characterized in that it comprises the following steps:
   - mixing a solution of salts of at least one of said rare earths with phosphate ions in a PO_4^{3-}/rare earth mole ratio of more than 1 with control of the pH of the reaction medium to a value of more than 2;
   - then ageing the precipitate obtained if the value of the pH of the reaction medium is in the range 2 to 6;
   - separating the precipitate from the reaction medium;
   - re-dispersing said precipitate in water;
   - adding at least one salt of said rare earth and said acid to the dispersion in a quantity such that the final PO_4^{3-}/rare earth mole ratio in the dispersion is equal to 1.

7. A process for preparing a sol of a phosphate of at least one rare earth selected from cerium and lanthanum according to any one of claims 1 to 5, characterized in that it comprises the following steps:

- continuously introducing, with stirring, a first solution of salts of at least one of said rare earths into a second solution containing phosphate ions and with an initial pH of less than 2; the phosphate ions being present in a quantity such that the PO_4^{3-}/rare earth mole ratio is more than 1;
- controlling the pH of the reaction medium to a substantially constant value of less than 2 during precipitation;
- separating the precipitate from the reaction medium;
- re-dispersing said precipitate in water;
- adding at least one salt of said rare earth and said acid to the dispersion obtained in a quantity such that the final PO_4^{3-}/rare earth mole ratio in the dispersion is 1.

8. A process according to claim 6 or claim 7, characterized in that the pH of the precipitation medium is controlled by adding a basic compound.

9. A process according to claim 8, characterized in that said basic compound is ammonium hydroxide.

10. A process according to any one of claims 6 to 9, characterized in that said phosphate ions are in the form of an ammonium phosphate solution, more particularly mono-ammonium phosphate or di-ammonium phosphate.

11. A polishing suspension, characterized in that it comprises a sol according to any one of claims 1 to 5 or a sol as obtained by the process of any one of claims 6 to 10.

12. Use of a sol according to any one of claims 1 to 5 or a sol as obtained by the process of any one of claims 6 to 10, on a substrate as an anti-corrosion agent.

13. Use of a sol according to any one of claims 1 to 5 or a sol as obtained by the process of any one of claims 6 to 10, as an anti-UV agent.